

SEQUENCE LISTING

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LOCARNINI, STEPHEN ALISTER
TORRESI, JOSEPH

<120> VIRAL VARIANTS AND USES THEREFOR

<130> 4420.000600

<140> 09/877,340

<141> 2001-06-08

<150> 60/210,395

<151> 2000-06-09

<160> 18

<170> PatentIn version 3.1

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Leu Xaa Xaa Asp Trp Gly Pro Cys Xaa Xaa His Gly Xaa His Xaa Ile
1 5 10 15

Arg Xaa Pro Arg Thr Pro Xaa Arg Val Xaa Gly Gly Val Phe Leu Val
20 25 30

Asp Lys Asn Pro His Asn Thr Xaa Glu Ser Xaa Leu Xaa Val Asp Phe
35 40 45

Ser Gln Phe Ser Arg Gly Xaa Xaa Xaa Val Ser Trp Pro Lys Phe Ala
50 55 60

Val Pro Asn Leu Xaa Ser Leu Thr Asn Leu Leu Ser
65 70 75

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Xaa	Pro	Leu	His	Pro	Ala	Ala	Met	Pro	His	Leu	Leu	Xaa	Gly	Ser	Ser
		20					25						30		
Gly	Leu	Xaa	Arg	Tyr	Val	Ala	Arg	Leu	Ser	Ser	Xaa	Ser	Xaa	Xaa	Xaa
		35					40					45			
Asn	Xaa	Gln	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	His	Xaa	Xaa	Cys	Ser	Arg
	50					55					60				
Xaa	Leu	Tyr	Val	Ser	Leu	Xaa	Leu	Leu	Tyr	Xaa	Thr	Xaa	Gly	Xaa	Lys
65					70				75						80
Leu	His	Leu	Xaa	Xaa	His	Pro	Ile	Xaa	Leu	Gly	Phe	Arg	Lys	Xaa	Pro
			85						90					95	
Met	Gly	Xaa	Gly	Leu	Ser	Pro	Phe	Leu	Leu	Ala	Gln	Phe	Thr	Ser	Ala
			100					105						110	
Ile	Xaa	Xaa	Xaa	Xaa	Xaa	Arg	Ala	Phe	Xaa	His	Cys	Xaa	Xaa	Phe	Xaa
		115					120					125			
Tyr	Met	Asp	Asp	Xaa	Val	Leu	Gly	Ala	Xaa	Xaa	Xaa	Xaa	His	Xaa	Glu
	130					135					140				
Xaa	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Leu	Xaa	Xaa	Gly	Ile	His
145					150					155					160
Leu	Asn	Pro	Xaa	Lys	Thr	Lys	Arg	Trp	Gly	Tyr	Ser	Leu	Asn	Phe	Met
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Gly Tyr Xaa Ile Gly
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Phe Pro Ser Cys Cys Cys Thr Lys Pro Thr Asp Gly Asn Cys Thr Cys
20 25 30

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Asn Gln Tyr Gly Thr Met Gln Asn Leu His Asp Ser Cys Ser Arg Gln
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Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
20 25 30

His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
35 40 45

Gly Val Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile
50 55 60

Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
65 70 75 80

Met Asp Asp Val Val Leu Gly Ala Lys
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Phe Pro Ser Cys Cys Cys Thr Lys Pro Thr Asp Arg Asn Cys Thr Cys
20 25 30

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Phe Pro Ser Cys Cys Cys Thr Lys Pro Thr Asp Gly Asn Cys Thr Cys
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 Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
 20 25 30
 His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
 35 40 45
 Gly Val Gly Leu Ser Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile
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 Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
 65 70 75 80
 Met Asp Asp Val Val Leu Gly Ala Lys
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 Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
 20 25 30
 His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
 35 40 45
 Gly Val Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile
 50 55 60
 Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
 65 70 75 80
 Val Asp Asp Val Val Leu Gly Ala Lys
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Leu	Tyr	Val	Ser	Leu	Met	Leu	Leu	Tyr	Lys	Thr	Tyr	Gly	Trp	Lys	Leu
			20					25					30		
His	Leu	Tyr	Ser	His	Pro	Ile	Val	Leu	Gly	Phe	Arg	Lys	Ile	Pro	Met
			35				40					45			
Gly	Val	Gly	Leu	Ser	Pro	Phe	Leu	Leu	Ala	Gln	Phe	Thr	Ser	Ala	Ile
	50					55					60				
Cys	Ser	Val	Val	Arg	Arg	Ala	Phe	Pro	His	Cys	Leu	Ala	Phe	Ser	Tyr
65					70					75					80
Ile	Asp	Asp	Val	Val	Leu	Gly	Ala	Lys							
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Thr	Gly	Pro	Cys	Lys	Thr	Cys	Thr	Thr	Pro	Ala	Gln	Gly	Asn	Ser	Met
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Phe	Pro	Ser	Cys	Cys	Cys	Thr	Lys	Pro	Thr	Asp	Arg	Asn	Cys	Thr	Cys
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Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
20 25 30
His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
35 40 45
Gly Val Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile
50 55 60
Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
65 70 75 80
Ile Asp Asp Val Val Leu Gly Ala Lys
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Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
20 25 30
His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
35 40 45
Gly Val Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile
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Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
65 70 75 80
Ile Asp Asp Val Val Leu Gly Ala Lys
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Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
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His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
35 40 45
Gly Val Gly Leu Ser Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile
50 55 60
Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
65 70 75 80
Val Asp Asp Val Val Leu Gly Ala Lys
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Phe Pro Ser Cys Cys Cys Thr Lys Pro Thr Asp Arg Asn Cys Thr Cys
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Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu
20 25 30

His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met
35 40 45

Gly Val Gly Leu Ser Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile
50 55 60

Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr
65 70 75 80

Val Asp Asp Val Val Leu Gly Ala Lys
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Phe	Pro	Ser	Cys	Cys	Cys	Thr	Lys	Pro	Thr	Asp	Gly	Asn	Cys	Thr	Cys
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Leu	Tyr	Val	Ser	Leu	Met	Leu	Leu	Tyr	Lys	Thr	Tyr	Gly	Trp	Lys	Leu
			20					25					30		
His	Leu	Tyr	Ser	His	Pro	Ile	Val	Leu	Gly	Phe	Arg	Lys	Ile	Pro	Met
			35				40					45			
Gly	Val	Gly	Leu	Ser	Pro	Phe	Leu	Met	Ala	Gln	Phe	Thr	Ser	Ala	Ile
	50					55					60				
Cys	Ser	Val	Val	Arg	Arg	Ala	Phe	Pro	His	Cys	Leu	Ala	Phe	Ser	Tyr
65				70					75					80	
Val	Asp	Asp	Val	Val	Leu	Gly	Ala	Lys							
				85											